Pest Update (June 30, 2010)

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Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insect from other states. If you live outside of South Dakota and have a question, please send a digital picture of the pest or problem instead. **Walnut samples may not be sent in from any location – please provide a picture instead**.

Available on the net at:
http://sdda.sd.gov/Forestry/Educational-Information/PestAlert-Archives.aspx

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Plant development for the growing season

We are seeing the littleleaf linden and smokebushes in bloom so we are about on schedule for the year.

Treatments to do now

Spruce bud scale crawlers will be hatching soon. The scale resembles a small round, reddish bud and they can be found on near the tips of the branches where the side branches attach to the shoot. They, and their mobile young called crawlers, suck the sap from the shoots resulting in dieback and decline of the lower branches. Since these are soft scales they produce honeydew that results in a black, sooty appearance to the needles and twigs. The scales have one generation per year and the crawlers' hatch about the time littleleaf lindens are in bloom – meaning now. The time to control them is during the crawler stage. The best treatments are insecticides containing acephate or carbaryl as the active ingredient and applied on the foliage and shoots near the tips. Products containing imidapcloprid can be effective as a soil drench but are best applied in the fall for control the following year.

We are also coming up to the time to treat for spruce needleminer. The needleminer (*Endothenia albolineana*) gets its name from it's the fact that the young larvae are so tiny they can live inside the needle, mining it as they feed. They eventually outgrow their home and then create a nest of webbed, detached needles to live in. The larvae usually feed on the lower, exterior needles, almost stripping the tips of needles but they can also be found in the interior of the tree and even the tops of young trees. The adults are small moths that will begin flying soon and depositing eggs on the needles. Control is now generally acephate thought carbaryl, is very effective. The trees should be treated in the next week as the adults begin to take flight.

Treatments to do soon

Apple maggot (*Rhagoletis pomonella*) is one of the insects that can infest apples in our state and is the most serious problem in the eastern half of our state. Symptoms of a maggot infestation are dimpled, lumpy appearance to the surface of the apple and the flesh often turning mushy and containing brown trails or streaks. A sure sign of the pest – an unpleasant if you happen to find

one, or *half* of one, while eating the apple – is a small (1/4"), creamy white and legless larva in the fruit. The adults, resembling houseflies with banded wings, are currently flying and laying eggs on the developing apples and will continue with egg-laying for another month. Once the eggs hatch the larvae burrow into the apple. The apple maggot pupates in the soil and emerges as an adult beginning in early July. However emergence and egg laying probably will not begin in earnest until the middle of July so there is still time for control measures (even if any eggs are laid earlier in the season the egg is either crushed by the expanding fruit or the larvae cannot survive in the high-acid of the newly developing apple). Control is an insecticide containing carbaryl, with applications beginning in early to mid July this year with subsequent applications every 7 to 10 days for three or four applications. Apple maggots tend to emerge from the soil after a 1/2-inch rains so some growers time applications with rainfall but this is not necessary for the home-production. Another means of management is to place 3-inch diameter bright red balls in the tree, about 2 in semi-dwarf trees (about 10-15 feet tall) and 5 in standard size trees (about 20-30 feet tall) that are covered with a sticky material called tanglefoot. The female apple maggot always flies to the biggest, brightest apple to lay her eggs and these will be the biggest, brightest "apples" in the tree. You cannot eliminate the pest by using this control but the population can be significantly reduced. The "apples" can be made from material found in almost any garden store or you can buy the completed "apples" from the internet, try www.gardensalive.com.

E-samples

I have been receiving a number of samples regarding "fuzzy mats" on cranberrybush viburnums. The culprit is not a disease, though the felt-like growth certainly appears to be so, but instead an erineum gall formed by a very small eriophyid mite (barely visible with a 10x lens). This mite is very host specific and will not move to infest other nearby plants, unless they are also cranberrybush viburnums. However there are a number of other plant species that are affected by their own erineum galls, including ash and mountainash, where they appear as small dots on the leaves, and birch where the mats form raised felt like pads between the veins and on the leaf margins. There is no effective control other than prune off infested shoot tips.

Cottony maple scales are becoming very noticeable on silver maples, though the insect can also be found on hackberries, lindens and elms. This soft scale overwinters as an immature female on the twigs and now they are bulging with masses of eggs – almost looks like "Jiffy-Pop" on a twig. The eggs are beginning to hatch now and the young crawlers will move about the twig until

they find a suitable place to feed. Once settled, the scale will lose its ability to move and remain stationary for the remainder of its short life. The cottony maple scale is a soft scale, meaning it does produce honeydew, a sticky substance that rains down on leaves as well as decks, cars and any other object below the infested tree. The best solution is to treat with an insecticidal soap now, about the time littleleaf lindens are in bloom and repeat ten days later. Be sure to read the label on the soap before applying to sliver maples as some formulations may injury the foliage. A soil drench of an insecticide containing imidacloprid can also provide effective control and may be a more practical means of treating a tall tree but the drench should be applied in early June, rather than now, to ensure good distribution of the pesticide through the tree's canopy.

Anthracnose is still showing up but now on sycamore (*Platanus occidentalis*). We do not have a lot of sycamores in South Dakota, but the ones we do have appear to be heavily infected by the anthracnose fungus this summer. There are some nice trees in the Sioux Falls- Yankton region as well as Rapid City (and a very lonely one in Webster) and for the last week or two they have been dropping their leaves. Now many of the trees only have tufts of foliage at the branch tips. The fallen leaves, which are littering yards beneath the trees, are covered with large blotches that are associated with the veins, particularly near the base of the leaves. The disease can also infect the twigs resulting in a proliferation of stunted shoots appearing along the branch. There is not much a tree owner can do to protect their tree other than rake up and dispose of the fallen leaves to reduce the amount of overwintering fungi. This provides only limited control and usually fungicide treatments are necessary to control the disease to any degree. The trees can be injected with a fungicide; in fact some of the same ones used for Dutch elm disease control, but these must be done by a certified pesticide applicator and are not available to the general homeowner market.

Pseudomonas blight is appearing on lilacs across the state. The symptoms of this infection look similar to fireblight, another bacterial disease, which produces blackened, curled shoot tips and water-soaked appearing foliage. Interestingly the disease can result in formation of ice formation in tissue, thereby reducing hardiness and generating symptoms in the plant that resemble frost injury. The disease is

common on the Japanese tree lilac (*Syringa reticulata*) but is also showing up on common lilac (*S. vulgaris*) this year. The best control is to prune out infected shoots, below the cankers or symptoms, but be sure to disinfect your pruning tools with Lysol Disinfectant to avoid transmitting the disease to healthy tissue. An application of a copper fungicide at bud break can also help reduce the presence of the disease. The disease rarely kills the plant, perhaps just a portion of it, and I have seen lilacs recover even without treatment.

Samples received

Clay County **What is wrong with all Curt's trees? They seem to have curling leaves.**

The ash, maples, willow, etc all appear to have been exposed to herbicide drift. This is a common occurrence in early summer with all the weed spraying going on in town and the drift can come in from quite a ways so do not be too quick to blame the adjacent neighbors!

Dewey County **What is wrong with these cottonwoods?**

This is marssonina leaf spot which can result in rust-brown to black necrotic blotches throughout the leaves. The disease is beginning to appear on the succulent shoots of cottonwood trees now. The only control is avoid overhead irrigation which tends to spread the disease better (and our rains have helped the disease as well) and thin out the plants to improve airflow. There are no chemical controls.

Harding County **What is wrong with this crabapple? The leaves are browning and the shoot tips are black and curling.**

This is the bacterial disease fireblight and is a common occurrence in the northwestern part of the state as the disease develops rapidly in trees that have been hit by hail. If only a portion of the tree is affected the disease may be pruned out. Prune off branches about a foot or more below the last symptoms (but still at an attachment to the trunk or another branch, do not leave stubs) and be sure to spray the pruning tools with Lysol Disinfectant between cuts to avoid spreading the disease. A copper fungicide applied at flower fade and repeated once a week for five weeks may also help reduce the disease.

Minnehaha County **Is this pear scab?**

Yes, the blackened foliage is a common symptom though fireblight, a bacteria rather than a fungus such as scab, can produce similar symptoms so always good to send in a sample. Control is similar to apple scab, both timing and fungicides, though you can usually do fewer sprays. Start applying captan as the buds swell and repeat every three weeks until petal fall.

Minnehaha County **What is affected these apple leaves?**

This is probably the worst case of apple scab I have seen this year! Follow the recommendation made above for pear scab.